

# AMERICAN BEE JOURNAL



GEORGE W. YORK,  
Editor.

CHICAGO, ILL., JANUARY 16, 1902.

FORTY-SECOND YEAR  
No. 3.

WEEKLY



APIARY OF MR. FRED H. HUNT, OF JEFFERSON CO., COLO.—  
(See page 36.)

# THE AMERICAN BEE JOURNAL

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To promote and protect the interests of its members.  
To prevent the adulteration of honey.  
To prosecute dishonest honey-dealers.

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**A Celluloid Queen-Button** is a very pretty thing for a bee-keeper or honey-seller to wear on his coat-lapel. It often serves to introduce the subject of honey, and frequently leads to a sale.



**NOTE.**—One reader writes: "I have every reason to believe that it would be a very good idea for every bee-keeper to wear one [of the buttons] as it will cause people to ask questions about the busy bee, and many a conversation thus started would wind up with the sale of more or less honey; at any rate it would give the bee-keeper a superior opportunity to enlighten many a person in regard to honey and bees."

The picture shown herewith is a reproduction of a motto queen-button that we are furnishing to bee-keepers. It has a pin on the underside to fasten it.

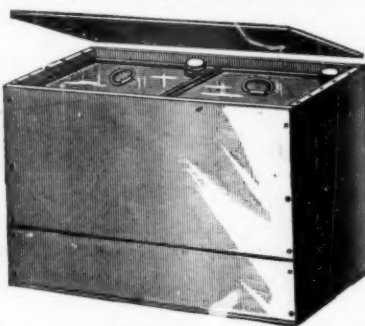
Price, by mail, 6 cents; two for 10 cents; or 6 for 25 cents. Send all orders to the office of the American Bee Journal.

## BEST Extracted Honey For Sale

ALL IN 60-POUND TIN CANS.

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This is the famous White Extracted Honey gathered in the great Alfalfa regions of the Central West. It is a splendid honey, and nearly everybody who cares to eat honey at all can't get enough of the Alfalfa extracted.



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This is the well-known light-colored honey gathered from the rich, nectar-laden basswood blossoms. It has a stronger flavor than Alfalfa, and is preferred by those who like a distinct flavor in their honey.

### Prices of Alfalfa or Basswood Honey:

A sample of either, by mail, 10 cents, to pay for package and postage. By freight—two or more 60-pound cans of Alfalfa, 7½ cents per pound. Basswood Honey, ½ cent more per pound than Alfalfa prices. Cash must accompany each order. You can order half of each kind of honey, if you so desire. The cans are two in a box, and freight is not prepaid.

### Order the Above Honey and then Sell It.

We would suggest that those bee-keepers who did not produce enough honey for their home demand this year, just order some of the above, and sell it. And others, who want to earn some money, can get this honey and work up a demand for it almost anywhere.

**GEORGE W. YORK & CO., 144 & 146 Erie St., Chicago, Ill.**

## The Novelty Pocket-Knife.

Your Name and Address on one side—Three Bees on the other side.



(THIS CUT IS THE FULL SIZE OF THE KNIFE.)

**Your Name on the Knife.**—When ordering, be sure to say just what name and address you wish put on the Knife.

**The Novelty Knife** is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed the name and residence of the subscriber, and on the other side pictures of a Queen, Drone, and Worker, as shown here.

**The Material** entering into this celebrated knife is of the very best quality; the blades are hand-forged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring-steel, and the finish of the handle as described above. It will last a last-time, with proper usage.

**Why Own the Novelty Knife?** In case a good knife is lost, the chances are the owner will never recover it; but if the "Novelty" is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the "Novelties," your POCKET-KNIFE will serve as an identifier; and in case of death, your relatives will at once be notified of the accident.

How appropriate this knife is for a present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, or a lady to a gentleman, the knife having the name of the recipient on one side?

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Chicago, Ill.

Please allow about two weeks for your knife order to be filled.



# ESTABLISHED IN 1861 AMERICAN THE OLDEST BEE-PAPER IN AMERICA BEE JOURNAL

42d YEAR.

CHICAGO, ILL., JANUARY 16, 1902.

No. 3.

## Editorial.

The Lies About Honey are re-appearing in various forms in both newspapers and farm journals. Mr. Newton Bawn sends the following, which appeared lately in a department conducted by J. S. Trigg, of Rockford, Iowa, who is an agricultural writer of considerable prominence, and should know better than to "get off" such stuff:

"A cute machine manufactures the artificial comb and a swindler takes it and fills it with glucose honey, scattering here and there a dead bee on the comb, and the deluded purchaser eats it, associating it with apple-bloom, the fragrance of white clover and summer flowers, while the stuff is made of paraffine instead of beeswax for the comb, and glucose for the nilling."

If Mr. Trigg doesn't correct that paragraph at once, a good many thousand people will now know where he belongs. It is exceedingly unfortunate that any one should be willing to write a thing like that, and thus put himself down as—as well there isn't a word of truth in the whole paragraph.

We have written Mr. Trigg, requesting him to publish "The Truth About Honey," in his paper. He should be only too anxious to get a statement like that, which appears over the names of responsible men.

**Carbolineum.**—A warning is sounded against the use of this material in hives, as it may affect the flavor of honey. It ought to be a fine preservative for bottom-boards, where it would perhaps not affect the honey.

**Sweet Clover as Forage.**—A short time ago Gleanings in Bee-Culture asked for reports as to whether stock would readily eat sweet clover. From Michigan, Ohio and Indiana come responses that say neither horses nor cows will eat it unless starved to it. From New Mexico comes the report that horses and cows will eat it down as clean as if a mower had gone over it. M. S. Gosney reports as follows from Kentucky:

Last fall I sowed some five acres in timothy. The winter was hard, and, supposing I would have a light catch in February, I sowed sweet clover, got a fair stand, and more than half a stand of timothy. When the timothy seed was ripe and had begun to fall, the sweet clover was from 18 inches to 2 feet high. I turned in three horses which had never learned to eat sweet clover. After a few days I noticed they were eating the clover and leaving the other grasses, of which there was an abundance—not only timothy, but blue-grass and Bermuda grass; but they ate nothing but the clover until they got the last

bit of it, and, owing to the extreme drouth, I fear the sweet clover will all be killed. My buggy-horse ate sweet-clover hay greedily the first time he ever saw any.

These reports are about as contradictory as usual. Sometimes two men in the same locality give opposite reports. The probable fact is that some stock have learned to eat it and some have not. One man writing to Gleanings seems to think there must be some sinister motive in the mind of any one who advocates that stock should be taught to eat sweet clover, saying:

"You certainly have had enough evidence, such as Mr. Zurburg's, to convince a jury or an honest man. Why should we wish our stock to learn to eat it?"

The testimony of a thousand men might be given that stock would not touch sweet clover, but if a single reliable man should testify that he had seen horses and cows eat it greedily, no honest jury would decide that sweet clover was worthless as forage. The time was when hard coal was considered worthless as fuel, because no one knew how to burn it; but when one man actually succeeded in burning it, his testimony that it was good for fuel outweighed all the negative testimony that could be piled up against it.

There are a good many people who know from personal observation that sweet clover has a value as a fodder-plant, and their number is constantly increasing.

**The Sting of the Queen-Bee** is thought by some to be of use in the act of egg-laying. B. Hamlin-Harris says in the British Bee Journal:

I have myself repeatedly seen the queen-bee, while actually laying eggs, work her sting up and down, as if by such an act the process were made easier. I think it is simply common-sense to suppose that such would be the case. But must we not seek an answer to our question from a different and more fundamental source?

The question is, What relationship exists between the sting and the egg-laying organs? Surely, they both belong to the same system, and bespeak the feminine sex. The sting is essentially a part of the female, and not the male. Would it be surprising, then, if one organ assisted the other, though, perhaps, in a very small degree?

**Bees in Hot Countries** are sometimes said to be lazy about storing after having learned in a tropical climate that they may depend upon the flowers for a continuous supply. In the British Bee Journal, A. C. Sewell writes from South Africa:

One has only to watch the hives to dispose of any charge of want of energy. I have seen them returning with pollen in the early dawn before sunrise, and in the evening, when it was so dark that I had to put up my

hand before the entrance to feel them going in, and a colony will build up with great rapidity.

The constant breeding that goes on must also require a large quantity of honey that would otherwise go into the supers. There is no long period of rest in winter, but one finds up country, where the climate is colder, that the harvest is better, and it seems to me that in order to get good honey in quantity a winter sufficiently cold to dry up vegetation and produce a dormant condition is necessary.

**Basswood Not a Success in Colorado** seems to be the verdict, according to reports in the Rocky Mountain Bee Journal. The trees die down to the ground each season, and make no substantial growth.

**Do Bees Get Honey from Corn?**—A discussion with regard to this is on in Australia. Hessel Hall, who says he secured, during the past season, between three and four tons of corn honey, is quoted in the Australian Bee-Bulletin as saying:

When the maize-fields are in bloom, if no other honey-flow is on, the whole apiary makes for the corn-tassels. At such times the bees roar and show signs of excitement over their work, such as they never show except when they are bringing in honey.

During the period of maize-bloom the bees working on maize bring in large quantities of dull, greenish-colored honey, mild and pleasant in flavor, candying speedily into soft, white crystals, rather brittle in the grain. This honey is not so glutinous as most honey, cuts differently in uncapping, and, when new, carries with it the odor of the maize-blooms.

"The Truth About Honey" is something that few people aside from actual bee-keepers know much about. It is unfortunate, too, both for the general public and the producers of honey.

Recently, the old lie about the manufacture of comb honey was revived, and it is again going the rounds of the press, greatly to the detriment of honey sales in certain localities. One of the greatest offenders lately was the Chicago Daily Tribune. And the worst of it was, that when this influential newspaper was requested to publish a refutation of its slander against honey, it gave only a few lines of truth, when it had used considerable space in which to tell what was not true.

In view of the many misrepresentations that are current, the Chicago Bee-Keepers' Association appointed a committee at its meeting in December, for the purpose of preparing a statement for the general newspaper press, that should aid in setting the reading public right on the honey question. Their report has been given out for publication to all the Chicago daily newspapers, and now it only remains to be seen whether they will

publish it, and thus desire to correct the errors which they have helped to circulate.

Wishing our readers to see the report of the committee referred to, we give herewith a copy of it, and would suggest that all endeavor to have it reprinted in their local newspapers. If any paper will publish this report, and desires to have the pictures also, we will, upon request from the publishers of any such paper, mail electrotypes of the engravings free, and also a printed proof or copy of the report. We offer this so that no bee-keeper need part with his own copy of the American Bee Journal.

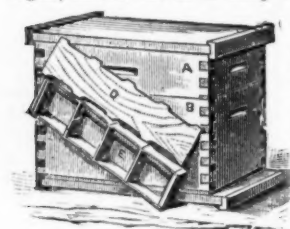
Here follows the committee's report:

## The Truth About Honey.

### A Committee of the Chicago Bee-Keepers' Association Corrects Some Popular Errors.

Some statements with regard to honey, which are very far from the truth, having been published, the Chicago Bee-Keepers' Association appointed the undersigned a committee to give to the public a statement of the exact truth with regard to the purity or impurity of honey as found upon the market.

Honey is not only an appetizer, it is an article of food of the highest value. Unlike sugar (which makes such a strong demand upon the digestive organs that it is a prime factor in the establishing of that terrible scourge, Bright's disease, and other diseases), honey lays no heavy burden upon any vital organ, and its use as a daily article of diet tends toward health and long life. Such being the case, it is of the first importance that the pure article should be obtained.



BEE-HIVE.

Honey is found upon the market in two forms: liquid, and in the comb. The liquid is obtained by throwing it out of the comb by means of centrifugal force, in a machine called a honey-extractor, in which the comb of honey is revolved so rapidly that the honey flies out of the comb somewhat as the mud flies from a wagon-wheel when the wheel revolves rapidly. When thus obtained it is called extracted honey, and may be found put up in tin or glass packages. It varies in color from water-white to almost black, the color depending upon the flowers from which the honey was obtained. Nearly all honey granulates upon the approach of cold weather, having somewhat the appearance of lard, and in this form it is preferred by some. It can be restored to the liquid form by heating it slowly, as too much heat spoils its delicate flavor.

It is not a hard matter to mix glucose with extracted honey, the mixture varying in character according to the quality of glucose used, the ordinary glucose of commerce containing matters unfit to enter any human stomach. Thanks to the efforts of the National Bee-Keepers' Association and the valuable aid of the Illinois Pure Food Commission, the operators in this vile work of adulteration have found Chicago no longer a safe field in which to operate, and it is now not a difficult thing to find pure extracted honey just as stored by the bees. Respectable grocers have no difficulty in offering you an article that they may warrant as pure, having on the label the name of some reliable producer or dealer.

Comb honey is that stored in waxen cells, the marvelous workmanship of the honey-bee. The statement that no pure comb honey can be found upon the market in Chicago, but that it is all "manufactured stuff made up of glucose and paraffine," could not possibly be farther from the truth. The sim-

ple truth is that *not a pound of comb honey that was not made by the bees is to be found in all Chicago.* There is not a pound of it in all the world, and never was. The Department of Agriculture at Washington, D.C., has also issued a statement that there is no such thing as manufactured comb honey.

The following offer, made by a man of undoubted financial responsibility (and the undersigned are willing to add their own financial responsibility to his), bears upon the case:

"I will pay \$1000 in cash to any person who will tell me where comb honey is manufactured (*i. e.*, filled and capped over) by machinery; or I will pay the sum to any one who will find machine-manufactured comb honey on the markets for sale."

That offer, made in all good faith, has been standing for years, but no one has claimed the \$1000. The offer still stands, and if the mass of comb honey is manufactured it ought not to be a difficult matter to find a pound—just one little pound—of such manufactured honey through which to obtain that \$1000.

The truth is, that when you find honey in the comb you may be absolutely certain that the bees, not man, put it there. It may vary in color, it may vary in quality; all flowers do not yield the same honey; but it was all stored by the bees.

It ought not to be a difficult matter for any one with the exercise of a little common sense to convince himself that there is no such thing as manufactured comb honey. Take any two samples and compare them. While they may look in general alike, it will be easy to see that there is so much difference in them (variations in the irregularities upon the surface and on the edges) as to show that they could not possibly have been made in the same mould. No two samples of comb honey exactly alike can be found in all Chicago. So they could not have been made by any machinery except that of the bee.



HONEY-EXTRACTOR

The statement, "Genuine honey has brown coloring around the cells; glucose honey is perfectly white," could only be made by one densely ignorant of honey. The truth is, that all honey-comb, when first made by the bees, is white as the whitest found on the market. If it is left in the care of the bees it becomes dark, and if left with them for several years it will become almost black. All of it would obtain the "brown coloring" simply by being left long enough on the hive. The white is more beautiful to the eye (no better to the taste), so it is taken from the hive generally before the bees have had time to darken it.

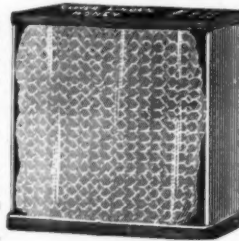
This is the truth about honey.

GEORGE W. YORK,  
President Chicago Bee-Keepers' Association.  
C. C. MILLER, M. D.  
C. P. DADANT.

LATER.—A day or two after delivering a copy of the committee's report or statement to the Chicago Tribune, it was returned to us with the following note:

"The Editor of the Tribune regrets that he can not make use of the manuscript, which is respectfully returned herewith. This does not mean necessarily that the article is not meritorious, as on account of the large number of manuscripts received it is not possible to print all."

But little comment on this is necessary. The Tribune thus admits that it had room to publish lies about honey, but it has not the space to allow the truth to appear about it!



COMB HONEY.

We hope those of our readers who are so unfortunate as to read The Tribune, will let its editor know what they think of its way of doing things. It has plenty of space for liquor dealers' advertisements, sporting stuff, etc., but declines to correct its own misstatements that are of untold damage to an honest industry.

**Washington as a Bee-Country.**—A writer in Gleanings in Bee-Culture, who has kept bees in that State for six years, gives a charming picture of Washington west of the Cascade Mountains, where pretty much everything combines to make life worth the living—no hot weather, the average in summer being 70 degrees, seldom below 40 degrees in winter, no mosquitoes, flies or gnats, no snakes except garter-snakes, no wind-storms, no thunder nor lightning, etc.—and then comes this wet blanket:

"But he won't find this a very good bee-country, for the simple reason that the summers are entirely too cool."

## Weekly Budget.

MR. FRED H. HUNT'S APIARY appears on the front page this week. He calls it "Wheatridge Apiary," and it contains 90 colonies. Mr. Hunt reports the last season as being not a very favorable one in his locality, the average surplus honey per colony being much below the normal.

MR. A. E. WILLCUTT, of Hampshire Co., Mass., writes as follows, in reference to "stone shade-boards:"

MR. EDITOR:—Please send word hastily, to our "hasty" friend "Hasty," to clear his throat for giving the three cheers mentioned on page 9. I will gladly send him a "sample dozen" of the "stone shade-boards" by mail, if he will send the required postage. They will all be sent in the "flat," and each piece under separate cover; he can "nail them up" at his leisure. A. E. WILLCUTT.

MR. F. W. L. SLADEN, a prominent apiarian writer in Eggland, writing us Dec. 30, 1901, said, among other things:

MR. GEORGE W. YORK.—

Dear Sir:—I have only just got back to England from a three-months' trip amongst some of the prominent bee-keepers in the Eastern States and Canada. I very much regret I did not get as far as Chicago.

I was very sorry I was not able to get over early enough to attend the National convention at Buffalo. However, all the American bee-keepers I called upon treated me splendidly, and I had a very good time indeed with them. Amongst those I called on were, Ernest R. Root, Frank Benton, Capt. Hetherington, G. M. Doolittle, W. F. Marks, and C. W. Post and Dr. Fletcher of Canada. I was also very glad to make the acquaintance of Mr. Ashmead, of the National Museum, Washington; D. C., who is deservedly held in very high esteem by the hymenopterists of this country.

Yours very truly,

F. W. L. SLADEN.

It was indeed unfortunate that Mr. Sladen could not be at the Buffalo convention; there he would have met many others that would have been pleased to meet him. He must come again, and remain longer.



## Contributed Articles.

### Wintering Bees—Indoor and Chaff Hives.

BY G. M. DOOLITTLE.

A CORRESPONDENT writes me from the State of Illinois, saying: "I have kept bees for a number of years, but have lost from one-half to two-thirds each year in wintering. I have always wintered them outside. If I cannot devise a safe method of wintering I shall be compelled to go out of business. I desire to construct a special repository to hold about 100 colonies. Please give me some idea how to proceed—size, etc. Also kindly describe your method of indoor wintering, answering through the columns of the American Bee Journal."

I wish our correspondent had told us whether he used chaff hives, or those having only single walls, for, should it be that he has used only single-walled hives, then the best advice to give would be for him to try chaff-packed hives, for, in many localities in his State, chaff hives succeed fully as well as cellar-wintering, even in the extreme North, and it would seem that, even did he use chaff hives, there must be some



G. M. DOOLITTLE.

fault outside of the hives, which would cause a loss of from one-half to two-thirds of his colonies each winter.

An undue consumption of honey during the period of confinement, brought on by cold weather, seems to be the main cause of winter losses. When bees remain in that quiescent condition, which is required for safe wintering, a pound of honey a month suffices the whole colony, and in such a condition a colony could pass six months of confinement with ease. But if the same colony becomes uneasy from their confinement, these same bees will eat from five to seven pounds a month, and soil their hives and themselves so as to cause their loss in from six weeks to two months from the time they commence to eat so voraciously.

The chaff hive tends to keep the bees in the required quiescent condition, as thereby the bees are surrounded by porous walls, which carry off the moisture passing from the bees' bodies, also retaining the warmth generated by themselves, thus keeping the interior of the hive at a more uniform temperature than is possible without the chaff packing, this lessening the consumption of honey, and enabling them the better to throw off the larger part of the moisture contained in their food, so that their bodies can contain the rest till the weather shall become sufficiently warm for them to fly.

In all locations where a chance to fly is likely to occur as often as once in from three to five weeks, I doubt about there being any better mode of wintering than by using chaff-packed hives. But where winter holds sway for from three to five months, with seldom, if ever, a day occurring that is warm

enough for the bees to get out on the wing to relieve themselves from the accumulation necessary, through a constant taking in of honey (as fuel) to maintain the warmth necessary even in chaff hives, then it is best to provide them with a better protection than these chaff hives can afford. And, so far as is now known, cellar (or indoor) wintering, gives the best protection for the bees that there is under such circumstances.

To be sure, the chaff hives have a seeming advantage over cellar wintering, in that the bees are allowed to fly if an opportunity permits during winter, but this is offset by a more uniform temperature, and a consequent decrease in the consumption of stores in the cellar, where the bees need but little food to keep up the necessary warmth they require during the period of partial inactivity which winter compels them to pass through.

From all of my experiences in the past, I would not advise wintering in any special repository constructed above ground, as these are dependent upon the warmth created by the bees for their value, and experience has proven that a number of colonies do not seem to be able to keep up the uniform temperature required in any building above ground, as well as each would do singly in chaff hives. Hence, nearly all now agree, that, where it is advisable to use a special repository at all, said repository should be in the shape of a cellar partially or wholly underground, the latter being always preferable, from the fact that the temperature of the earth, at a depth of five or six feet, is very near the one being right for the safe wintering of bees where they must be confined for four or five months.

A good cellar under a dwelling usually answers the purpose required, and where it is large enough so that a part of the same can be partitioned off for the bees, making the partition, and the floor above, double-walled, the space between the walls being packed with corkdust, chaff or sawdust, (the former excelling anything else where it can be procured), there is little need of looking further for a good place to winter bees. If we do not have such a cellar under our dwelling, and our winters are too severe for bees in chaff-packed hives standing out, then it would be well to build a cellar entirely underground, if possible. And with a rise of ground near the apiary, or having a small hill or mountain near at hand, the possibility is right at hand, as the cellar can soon be "hewn out of the mountain" with a shovel and pickaxe. And the further back in the ground you go the more even temperature can be secured, and the more even the temperature, the better the bees will winter, provided that temperature is somewhere between 42 and 50 degrees above zero.

The entrance to this cellar should be protected by three or four doors, so that the dead-air space between the doors will serve to keep the cold from the outside from passing in too rapidly.

And the above, or last described, is just such a place as I have used for wintering bees during the past 25 years. As to size, allow 10 cubic feet to the hive, the cellar being 6½ feet deep. As to how the inside should be fixed, when to put the bees in, and when to take them out, etc., almost any of the bee-books will tell, to which all interested are referred.

Onondaga Co., N. Y.

### Triangular Wooden Comb-Guide—The Original Inventor.

BY M. M. BALDRIDGE.

On page 5 I find the following statement: James La Barre, of Kentucky, "a bee-keeper of extremely keen observation, and one of many practical ideas," but, "he reads little from choice." "It is not generally known that it was he who first conceived the idea of a V-shaped top-bar as a comb-guide. Early in the '60's he accidentally noticed that the bees in a box-hive in building their first comb extended it along a strip of wood which had been nailed on the inside of the box to cover a crack. Quick to see the point, he applied V shaped strips where he wanted the comb built, and the bees, true to their nature, used these as starting-points."

"In 1877, while visiting the late Chas. F. Muth, he mentioned the matter and asked him to apply the V-shaped bar to the Langstroth hives manufactured under his supervision. It was done, and afterward the V top-bar became a fixed feature of the Langstroth hive. Several have claimed this invention, but Mr. La Barre, being indifferent as to who reaps the benefit of his bee-knowledge, remained quiet, and let them fight it out among themselves."

The foregoing must be a surprise to many pioneers who used the Langstroth hives prior to the year 1860. The writer became acquainted with this hive in the year 1857, and began using it quite extensively in western New York in the spring of 1858, and he does not now remember the time when the V-shaped wooden guide was not used therein. As Mr. La Barre "reads little from choice," this may explain why he now claims to be the original inventor or discoverer of the triangular or V-shaped wooden guide. If he had been a reader of "The Hive and Honey-Bee," by Father Langstroth, prior to

1860, he would have found therein several references and illustrations in the 2d edition, published in 1857, of the triangular or V-shaped wooden guide he now claims as his invention in 1860 or thereafter.

As before stated, the writer first met the Langstroth hive in 1857, and this was at the apiary of the late Moses Quinby. Mr. Quinby had about 90 of these hives in use in his apiary at that time. He took pains to show and explain this hive in detail to me. I don't now distinctly recollect about seeing the triangular guide in the hive at the time, but I believe it was in use that year in all his hives. Later on, and during that year, I found the Langstroth hives on exhibition in Buffalo, and at the New York State Fair. The man who was exhibiting this hive was R. C. Otis, whose home was then near Kenosha, Wis. Mr. Otis had a colony of bees in the Langstroth hives and was handling and exhibiting the same to the visitors at the fair. He had also empty Langstroth hives on exhibition there, and my recollection is that they were all supplied with the V-shaped top-bars.

The following spring Mr. Otis made my father and me a visit at our apiary in Niagara Co., N. Y., five miles north of Middleport. My father bought the county right to manufacture and sell the Langstroth hive in Niagara county in the spring of 1858, and he had 200 new hives made that year in Lockport for our own use, and to sell to others, and I know that all the hives made that year were supplied with the V guide in the top part of the brood-frames.

So much for history.

Kané Co., Ill.

[Almost the next mail after getting the foregoing from Mr. Baldrige, we received the following from Mr. C. P. Dadant on the same subject:—EDITOR.]

#### ORIGINATOR OF THE V TOP-BAR.

Permit me to rise for a correction to an article published on page 5, by John R. Schmidt, as to the originator of the V top-bar. This gentleman says that Mr. James La Barre was the first man to conceive the idea of a V top-bar as comb-guide, and states that this discovery was made in the '60's. It is a matter of small consequence, practically, as to the first originator of the idea, but historically I believe we should know the truth of any claim. I believe the idea may have been original with the gentleman named at the date stated, but he was not the originator of the first V top-bar, for this was used by L. L. Langstroth in the '50's, and not only is this mentioned in his book, edition of 1857, but a picture of the frames with triangular bars at the sides as well as at the top is included among the plates, and a special description is made of the triangular piece.

On page 196 of the same work are found the following words:

"The great point to be gained is to secure a single comb on each frame. This I have effected after many experiments, and the device may be applied to any hive so that expense of a few cents will always secure straight combs."

This invention of the triangular bar seems to have been one of the points or features of the Langstroth patent, which cost its owner so much trouble and brought him so little reward, though the invention was revolutionizing the culture of bees.

Not only was the triangular top-bar a feature of the Langstroth hive 20 years before the time, when, as reported by Mr. Schmidt, this idea is said to have been suggested to Chas. F. Muth by Mr. La Barre, but at that same date—i.e., in the edition of 1857—a description is given and a cut, Plate III, Fig. 10, of a gauge for cutting these triangular top-bars on a power circular saw-table. So, granting that Mr. LaBarre may have suggested the idea to Mr. Muth, who suggested it in turn to Mr. Langstroth, (which is much to be doubted), there is an error of more than 20 years in the dates. I trace this to 1857, but if I had the first edition of the book in my hands, I firmly believe I could trace it at least five years further back.

The triangular top-bar is not an absolutely safe guide, but it answers in most cases. A very important point is to have the frames at proper distances from center to center. Although the bees themselves make slight variations, their combs are never closer together than  $1\frac{1}{4}$  inches. If the frames are placed too close to each other the bees may build the first comb right, but the next will be thrown out of the center of the bar, and, the regularity being broken, they may jump from one frame to another and curve their combs into all sorts of shapes, after they have once departed from the straight course.

Brood-combs are built with great regularity, as a certain space is needed in which to hatch the brood—a greater distance than that absolutely indispensable being apt to make their

combs too difficult to keep warm. On the honey-combs, however, they show much less regard for correct measurements, and, especially at the end of a season, they will readily lengthen out the cells of the outside combs to a very disproportionate size.

Thus, if we use only the triangular comb-guide to secure straight combs in the frames, we must be very careful to keep proper distances. We have always been inclined to give the bees ample room, and, for this reason, we follow Quinby in his method of putting the frames  $1\frac{1}{4}$  inches apart from center to center.

While ransacking our bee-books for information on the subject, I see that Bevan, in his book on the honey-bee, dated 1838, recommended putting the "bars" closer together in the center of the hive than at the outside. He had evidently noticed what I mention here, that the brood-combs needed to be closer together than the honey-combs, and for that reason found it advisable to place the latter at a greater distance from each other. He made his bars  $1\frac{1}{4}$  inches in width, and placed the center ones seven-sixteenths of an inch apart, while the outside ones were placed nine-sixteenths from each other. This made the distance one and nine-sixteenths from center to center on the brood-combs, and one and eleven-sixteenths on the storing-combs. This distance seems too great, and it is doubtful that there could be much regularity in combs built on those bars; but, at that time, the movable idea had not yet taken hold of the bee-keeping world, and the men of that day had not the remotest idea of the great steps that would be made in the next 60 years.

Debeauvoys, who had evidently foreseen the results that might be achieved with a hive that could be taken to pieces without injuring the combs, had made a failure of his discovery because he had left out the anti-propolizing idea—the prize feature of the Langstroth invention.

Before the invention of the wax sheet stamped with the imprint of the cells, which later gave rise to the modern comb foundation, Mehring had devised a stamp to be used on the underside of a flat top-bar which made an impression of the outline of the comb. This impression, afterwards filled with beeswax, was said to succeed well, but was soon superseded by what was known as a *comb-guide*, made of a thin strip of melted beeswax on the underside of the frame. The latest method is a narrow strip of foundation wedged into a groove on the under side of the top-bar. This is the surest of all guides, barring a full sheet of comb or of foundation. But the triangular top-bar, which makes the subject of this article, is still used in many hives, and will probably be used as long as apiarists want a cheap comb-guide.

Hancock Co., Ill.

C. P. DADANT.



### A Case of Bee-Fever—He "Had It Bad."

I have been a subscriber to the American Bee Journal for the past two years, and very little could I do without it. I find it a great help to me at every turn. I commenced to keep bees about five years ago, and have had all kinds of luck since then with them—good, bad, and indifferent. They were at all times a source of amusement to me, if not one of profit, having honey to sell but once in all that time (1901). But a sweet time it has been at the table all that time. Honey, honey, honey, three times a day, and sometimes oftener. Oh, no, not from surplus, dead colonies being the most frequent source of supply, until the last season.

My first start was made by trading poor debts for poor bees. In this way I got three colonies, which were neither a pleasure to the sight nor a profit to me, but they nevertheless gave me a "swell" time, while they lived, and a sweet one after they died. No Irishman ever had a longer or finer wake. We feasted them, at their expense, all winter and well into the spring.

The next year I had better luck, trading bad debts for better bees, getting three colonies this time, which built up strong for winter, but no surplus yet. One of these died during the winter, leaving a hive full of honey. I also captured an Italian swarm, in the timber, late in July, which, although a poor year, filled a ten-frame hive—for themselves—before frost. This strain of bees I still have, and they have never failed to yield me excess honey, except the first year.

Up to this time I had only a mild case of "bee-fever," but the next spring, with the return of warm days, the symptoms became more pronounced, and I developed the itch (to be a shining light in beedom, by some discovery or invention—a dangerous symptom, financially), which, I understand, is very apt to develop early in the disease. I had already subscribed for the "Old Reliable," and got "ABC of Bee-Culture." That was



my undoing, and, incidentally, rather hard on the bees. The fever raged higher and higher: I became delirious; visions of golden queens floated before my eyes. I began to believe the advertisements of the queen-rearers, even so far as to send my good money to them. I divided and subdivided, Italianized and Carniolanized, formed nuclei and reared queens. Bee-ideas chased bee-ideas, up one side of my brain and down the other, most of them too large to get out the natural openings for ideas, except so misshapen as to be unrecognizable. Smoking became a fixed habit with me; I would not introduce my friends without first smoking them, for fear they would quarrel; nor open a conversation without it, dreading being stung (by a sharp tongue). In fact, I had smoker with me constantly—if not a bee smoker, a pipe, cigar, or cigarette.

I was also afflicted with hives, as the season advanced. The Dadant, the Danzenbaker, the Heddon, the Langstroth, the chaff and the Simplicity, and others that were not so simple—the six, eight and ten or more frame, deep and shallow, box, barn and palace, swarming and non-swarming hives, in endless procession, until I developed repeated attacks of urticaria. Things went on in this way, getting worse and worse. Ideas of single, double, quadruple, sextuple, etc., had their turn, until I must have a bee-house large enough to hold all my colonies. Having a small building not in use, I finally finished, after much study and expending some money, a model bee-house with accommodations for 14 colonies. I moved my bees in, not without some objections from the bees, however, which did not seem to appreciate the efforts I was making to convert them from their primitive ways of secreting themselves in any old place, to the more enlightened ways of domesticity, and with the same degree of bigotry, shown by some heathen tribes, to civilization, fought to (with) the bitter end.

I moved 12 colonies to their new home, and at first everything went along swimmingly, but winter came, and it got too cold to swim, or something else happened; at any rate, they began to die a slow and lingering death. First one colony died; we used what honey they had left. Then another would, by that time, become sufficiently ripened by death to be fit for table use. Death, the grim destroyer, continued to wreak vengeance until the gentle zephyrs of spring came, when, on examination, I found I had but one colony to occupy my fourteen-room bee-house, and they were showing signs of lonesomeness.

Strange to say, with the death of the bees, the fever began to abate, until it was almost gone, and I am convinced that if the last colony had died the disease would have been cured. But, with the return of spring, the symptoms began to get worse, and I passed through all the stages again, with but little better results than before, from a honey standpoint. I increased to twelve colonies again by fall, four of which I managed to pull through in spite of the bee-house. About this time, I might say that a house fell on me, and I took a tumble, that, perhaps, the bees did not want to be domesticated to the extent of living in an improved flat. So, early in the spring, I moved them back into hives (the four which were left), and they showed their appreciation by producing 380 pounds of comb honey, and increasing to twelve colonies once more.

The disease has subsided into a chronic condition, which I have been told is incurable, and is subject to relapses each spring, until death relieves, not only the sufferer, but also those afflicted with the sufferer.

The history of this disease dates back into the earliest times of which we have any writings, and, as far as I can find out, it has never received sufficient recognition to have a scientific name given to it. A careful study of the disease will show that all symptoms lead to irritation of the bees, and, as irritation, unless relieved, always leads to inflammation, I would suggest a combination of the two words *apis* (bee) and *itis* (inflammation), which would make the word *ap-is-i-tis* to be the scientific name of "bee-fever." This may not be scientifically correct but it would elicit sympathy for a sufferer of the disease where it now provokes mirth.

Thanking you for your kind indulgence, in listening to the plaintive lamentations of an apistetic,

I am, yours, etc.,

C. M. B.

"The Hum of the Bees in the Apple-Tree Bloom" is the name of the finest bee-keeper's song—words by Hon. Eugene Secor and music by Dr. C. C. Miller. This is thought by some to be the best bee-song yet written by Mr. Secor and Dr. Miller. It is, indeed, a "hummer." We can furnish a single copy of it postpaid, for 10 cents, or 3 copies for 25 cents. Or, we will mail a half-dozen copies of it for sending us one new yearly subscription to the American Bee Journal at \$1.00.

## Convention Proceedings.

### Report of the Ontario Bee-Keepers' Convention, Held at Woodstock, Dec. 3, 4 and 5, 1901.

REPORTED BY R. F. HOLTERMANN.

The annual meeting of the above association began Dec. 3, at 2:30 p.m. Members of the association had been gathering during the early part of the day and spending their time in discussing subjects of interest to themselves. Pres. Newton opened the meeting by calling upon Mr. Craig to lead in prayer. The minutes were read by Secretary Couse, and at the close a committee was formed to investigate an omission of names of the officers of the Ontario Bee-Keepers' Association during the joint meeting of the International and Ontario, in Toronto, at which time R. McKnight was president.

#### President Newton's Address.

*Ladies and Gentlemen:*—It is with pleasure that we meet again in convention. Another year has passed, and we are here to talk over the past and make plans for the future. The first of the new century has been very profitable to most bee-keepers, not only by the good flow of honey but by the good prices which have been obtained for our products. In fact, I may well say that we have to-day as good prices as we had ten or twelve years ago. Surely, this is encouraging. The quality, as far as I have been able to judge, has been extra-good.

Now as to our expectations for next year's crop: Bees in most parts have gone into winter quarters with good, ripened stores, which means much towards good wintering; and the roadsides are massed with white clover, and judging from this we may well look for a big crop in 1902. I doubt not, the most, if not all of you, have come here with the hope and expectation that this would be one of the most enjoyable and profitable meetings ever held by our Association. To make this a veritable reality can best be accomplished by each one taking part in the discussion, and so contributing his or her portion of information for the general good.

It was with deep regret that we learned the news of the sudden death of our ex-president, Dr. Thom, who held the position of president in the year 1884, and was much esteemed by all members of the Association. But these calls are but warnings to each of us that some day we, too, shall be called hence to our reward.

It will be remembered that at our last annual meeting a motion was passed to the effect that the Association deem it advisable to make an exhibit at the Pan-American. The matter was brought before the Ontario Government, and they decided to help us. At our executive meeting in May it was my pleasure to be appointed to go to Buffalo to install the exhibit. We made a generous call to bee-keepers of the Association to help us. We succeeded in getting a good supply of extracted honey, but not a great deal of comb. However, the extracted and comb were of a very fine quality. Our display was not large, but was greatly admired by all visitors. I may note a few remarks gathered by passers-by and entered in my register book:

"Canadian honey—what part? Ontario. Ontario is all right." "Magnificent exhibit." "Very artistic exhibit, and very clear honey." "Grand honey and beautiful exhibit; I'm glad I came upstairs to see it." "O, look at the purified honey! Isn't it fine? It's a very pretty show-up, ain't it?" "O isn't it fine? The Canadians may be slow, but they know how to put up a honey exhibit." There were only 21 exhibitors in all for the judging of awards. We were awarded the Gold Medal for the collective exhibit of honey, and 33 diplomas of honorable mention for our exhibit. I have to thank the members who so willingly aided us in making Canadian honey famous at the Buffalo Pan-American.

While at Buffalo I had the pleasure of attending two sessions of the National Bee-Keepers' Association, which so kindly extended an invitation to our society. I was pleased to see so many Canadian bee-keepers present, and enjoying the meeting. Every one reported a profitable convention.

During this year, also, Canadian honey has been represented at Glasgow, Scotland, being taken from the exhibit which was at Paris, in 1901; but I have been unable to find out what awards were given.

One of the questions at our last meeting was. Would it pay us to exhibit at Buffalo, knowing we had a duty of one and two-third cents per pound to pay to gain a market in the United States? I feel safe in answering it now, that I believe it has paid our Association. First, by showing the world that we can produce a very fine quality of honey in Canada—in fact, second to none; and that we as Canadian bee-keepers take a pride in our pursuit to put our honey tastefully on the market. I believe if we push for a market in the United States, even by paying the duty, we shall gain it, because American people seem to realize that Canadian laws are far more strict than their own. Our pure-honey bill is all right; let each member of our society try to enforce it, and by doing so we shall make a market for our product.

It will be laid before you for your consideration, the advisability of making stronger the bill which we now have in regard to spraying of fruit-trees while in bloom. We all know it is a serious question in some parts of the country to bee-keepers; let us all put our shoulders to the wheel and try what can be done.

The inspector of apiaries, so far as I have been able to learn, has been attending to the duties of his department in a manner which I trust will be satisfactory to all. His report will, however, be submitted for your consideration. My attendance at the exhibit at Buffalo, and meeting with the many bee-keepers of Ontario who do not belong to any bee-keepers' association at all, has brought me to think that they do not realize the advantages given to the members of the Ontario Bee-Keepers' Association. I would strongly advise that a small pamphlet be published setting forth the workings of our society and its advantage to bee-keepers, and have a copy placed in the hands of every bee-keeper in this land.

The matter of forming a guild, or exchange, will be brought to your notice by Mr. Andrew Patullo, M. P. for North Oxford, who has so kindly consented to take that subject for the basis of a few remarks to us.

In conclusion, I thank you for the confidence reposed in me a year ago in placing me in the position I now occupy. I trust you will all assist in making these meetings pleasant and profitable to each one of us, for in union alone there is strength.

JOHN NEWTON.

J. D. Evans, in reply to the President's Address, said he was at a disadvantage, not knowing what was about to be said. He wanted to praise Mr. Newton for the excellent and responsible work he had done this year as president, especially in connection with the Pan-American Exhibition; he had managed to do the thing economically. He thought it would be an advantage to make the law in connection with spraying more stringent. In his own district he had no trouble—the people were anxious to have bees about them. They found it an advantage in fruit setting; even this year they had apples when others had none. More educating should be done, and plenty of it. Doctor Fletcher's address in connection with the value of bees to the fruit-grower had been circulated, and more work in such directions was desirable.

Rev. W. F. Clarke congratulated the president upon his good work; he was pleased to hear of the success of the exhibit at the Pan-American. If Canadians would do justice to themselves they would hold their own with any country.

A resolution of congratulation and thanks was passed to Mr. Newton.

Mr. Newton said he forgot in his address to mention that the thanks of the association were due to Mr. Miller for supplying glass packages to help make the Pan-American exhibit attractive. A vote of thanks was then tendered Mr. Miller.

#### FOUL BROOD.

Prof. F. C. Harrison, bacteriologist, who has recently returned from a year or more of study at the leading bacteriological institute in Europe, gave the result of his work during the past season with foul brood. He stated that the work undertaken with foul brood at the Ontario Agricultural College during the past year has been rather limited. The only thing attempted this year was some means of destroying germs of foul brood in combs. One remedy had met with good success; that was, disinfecting combs and hives with the vapor of formalin. Pieces of comb had been taken containing wax and comb several years old, dead brood, capped brood, and cells of honey into which had been put foul-brood germs. These were placed in a box the size of the ordinary hive, the lower entrance in the box having been plugged, leaving only sufficient room for the entrance of a rubber hose coming from the disinfecting apparatus, similar to that for disinfecting plants, etc. The formalin gas apparatus was as follows:

An alcohol lamp, and upon it a reservoir with a 40-degree

solution of formalin. When the alcohol lamp was lighted the gas was soon generated. At the top of the box a one-half inch opening had been left; out of this the atmosphere passed as the box filled with formalin gas. When the box was full the gas would pass out of the upper orifice, detected by the odor. The apparatus was then withdrawn, both openings plugged, and the comb left under the influence of the gas for one hour, after which exposure no growth was obtained, four tests in all having been made. The honey-cells known to be affected gave no growth. The pressure obtained in generating the gas might in a measure account for the results. This cure would be practical in a large apiary. Other appliances used in disinfecting would answer.

Prof. Harrison also mentioned that some years ago he had taken a lot of cells or spores and placed them on glass in semi-darkness. He had tested them about every six months and had made a test very recently. Although where the cells had been placed nearly four years ago and exposed as per above, the last test showed they were still alive, showing that the spores were extremely resistant. In conclusion, Prof. Harrison said he hoped that the method of disinfecting he had given would be tested during the coming season.

Mr. Evans—I believe that this is one of the most important statements yet made in connection with foul brood.

Mr. Hall—Are the capped cells you mentioned, capped larvae, or capped honey?

Prof. Harrison—Capped larvae.

F. A. Gemmill—I think that the method given should be tested, and, if found better than the present, adopted.

Mr. Hall—We often have doubts about the surplus combs on infected hives, and other combs; these could be disinfected in the method given. I am very glad to hear the report.

J. K. Darling—How about bees and brood?

Prof. Harrison—Any in the box would, of course, suffer the same fate as the germs.

Mr. Evans—Would it not be well to shake the bees off the combs, then treat the combs and return the bees? An experiment in this direction might be tried.

R. H. Smith—Does the treatment make the combs objectionable to the bees?

Prof. Harrison—It does not injure the most delicate fabric.

Mr. Smith—Will the bees, if there are any dry scales, remove them from the base of the cells?

Mr. Gemmill—Do you think, if the scales were dry, they would be disinfected in the scales?

Prof. Harrison—Those I tested were moist, and it would doubtless be better to moisten them.

A. Laing—Why not turn the bees back to the combs, and after ten days repeat the operation? The bees would then be practically clear?

Prof. Harrison—As long as I fed carbolic acid, although growing millions of spores, no foul brood could be produced; but as soon as I left off feeding, foul brood developed.

Mr. Holtermann—It would not do to return the bees to the combs, and after ten days repeat the operation, because the bees, when disturbed, take up perhaps infected honey and return this to the comb, and there is no guarantee that they may not repeat this operation the second time.

A Member—What about McEvoy's method?

Mr. Holtermann—The combs are taken away, and the bees cannot store the infected honey in cells. I am afraid that bee-keepers, in their attitude, are rather inclined to despise scientific help and investigation—not in words, perhaps, as much as in attitude. Remedies and results are given such as this, and yet bee-keepers go on just as before.

W. F. Clarke—No wonder bee-keepers despise science when the inspector has drilled into them to despise science, and they are taught to hold to the theory of spontaneous generation, which no scientist to day holds.

Mr. Clarke read the Cheshire remedy, and wanted to know why this remedy had been ignored on this side of the Atlantic. Was it national jealousy, personal feeling, or what?

Prof. Harrison said if we will read Bulletin No. 12, issued by the Ontario Agricultural College, we will find considerable work has been done in this investigation. Carbolic acid will not destroy the germ; 2 percent solution will not destroy the germ in six days; 1 in 500 will prevent the germination of spores. The carbolic acid, in the strength mentioned by Mr. Cheshire, will not kill the spores, but may prevent their growth. Formic acid has a much greater value in disinfecting. Some honeys have more formic acid than others; buckwheat has almost twice that of clover honey. Bee-keepers had even noticed the sting more severe when the bees worked on buckwheat honey. He (Mr. Harrison) had spent several weeks with Mr. Bertrand, in Switzerland; he had also studied the disease in Austria. In those countries they had a race of bees which had a natural immunity from foul brood; for this



reason, he believed, the bees here, not being immune, the remedies which were a success in Europe were not such in this country—the bees were not immune to the same extent.

Mr. Clarke—Is phenol and carbolic acid the same thing?

Prof. Harrison—Yes.

Mr. Clark—Was 1 to 500 not a success?

Prof. Harrison—Only as an antiseptic; not to destroy the germs.

Mr. Holtermann—I would like to ask another question: Under what conditions does the germ grow again, which has been treated with carbolic acid 1 to 500?

Mr. Harrison—When you cease feeding. As long as you feed it is all right. The bees object to carbolic acid; formic acid is Nature's remedy. I may say we are always pleased to conduct at the College investigations along this and other lines. With the strength of staff we have we cannot conduct experiments for individuals, but where for public good, we will be pleased to carry on investigations. You help us by sending material, and we will help you with our appliances, and perhaps increase knowledge.

J. E. Frith—Have you been working on foul-brood experiments just for one year?

Prof. Harrison—No, for four years.

#### PICKLED BROOD—OTHER MATTERS.

The question of pickled brood was brought up, and it was thought well that the disease in New York State be investigated.

It was decided that samples be sent to Prof. Harrison, Ontario Agricultural College, Guelph, Ont., Canada, who promised to investigate them.

Wm. McEvoy, inspector of apiaries, suggested that bees be sent to Mr. Harrison to measure the length of their tongues.

J. B. Hall welcomed the Ontario Bee-Keepers' Association on behalf of the Oxford Association; he spoke of the incorporation of the Ontario Bee-Keepers' Association, the Colonial and Indian Exhibition, the Foul Brood Law, and eulogized Mr. McEvoy and the work he had done. Another important work was the Spraying Act passed through the instrumentality of the Association; then the Pure Honey Bill. The Chicago Exhibit, and that at the Pan-American, were also a success, and had done much to educate the local public and other nations as to Ontario honey.

The president called on Mr. Evans to reply, who responded thus:

"I am very glad to come to Woodstock; I knew the Ontario could teach the Oxford Association nothing, but we expect to learn a great deal from the Oxford [laughter]. We are quite ready to accept all the good things Mr. Hall has said of the Ontario Association. I think much has been done, but the end is not yet."

(Continued next week.)

## Questions and Answers.

CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

(The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.)

### Dividing, or Artificial Increase.

What is your plan for artificial increase? I don't want any natural swarms—I can't manage them—and my family are too afraid of them to give me much help. EAST.

ANSWERS.—If you had asked for a plan I might have answered you readily, but when you ask for my plan you make the question more difficult. I have no plans of my own, and do not always follow the same plan, taking just what seems to be the most convenient at the time. Probably the nucleus plan is followed more than any other. A nucleus is formed and a ripe queen-cell given to it, and then when the queen gets to laying, it is strengthened by means of a frame of sealed brood. If the nucleus be started sufficiently early, no aid will be needed to have it built up sufficiently strong for winter.

If you will take the trouble to send the question on a postal towards the last of May, I shall be glad to go more into detail, and advise you just what to do to start your cells and form your nuclei.

### Transferring—Paper Trimmings for Packing.

1. In the Heddon short method of transferring, what would you do about the queen that will be reared in the old hive while waiting 21 days for all the brood to hatch? According to my count, a new queen will be hatched, and have quite a little brood, before the 21 days expire.

2. How will paper trimmings from a book-bindery do for packing bees for winter? ILLINOIS.

ANSWERS.—1. The bees will take care of that matter to suit themselves. If the old queen is yet in full vigor, the young queen will likely be destroyed, otherwise she may be superseded by the young queen when the two parts are united. If you wish to save both queens, of course you can interfere.

2. I can only guess. I should think there would be danger of their being packed a little too solid; but if sufficient pains were taken to loosen them up they might be all right.

### Feeding a Mixture of Sugar and Honey.

I have a colony of bees in a box-hive, given to me by a neighbor, and it is short of stores. There is no way to get to them from the top of the hive, and I have been wondering if I could not carry them into the house-cellar, where the thermometer registers about 40 degrees, turn the hive bottom-side up, and lay upon the lower end of the combs a roll of sugar and extracted honey (mixed), leaving the hives in this position until spring. NEW YORK.

ANSWER.—Your scheme ought to work all right, only it would likely be better if the cellar were nearer 45 degrees. There is some danger that you will use too much honey and too little sugar—in other words, your candy will be too thin. If you find it so thin that it will not stay up in place (and very likely you will find it becoming thinner after it is given to the bees), take the candy away and work some more sugar into it so as to make it thicker and dryer.

### Hive for Producing Extracted Honey.

I desire to run my bees for extracted honey and would like to know if you consider it any advantage to have a hive wider than the 10-frame. Can swarming be kept down better with a wider hive? NORTH CAROLINA.

ANSWER.—I don't know for certain, but I think there might be less swarming with a hive larger than 10-frames. It would, of course, be more unwieldy, but you might not care much for that. It would be a good plan for you to try the larger hives on a small scale, carefully comparing them with the 10-frame hives, and then you would be able to tell better which would be best for you.

### Early Stimulative Feeding.

I have four good, strong colonies of bees with "red clover" queens, and want to divide as far as practicable and have the colonies so formed all in readiness for the honey-flow the last of June. I expect to feed liberally of both sugar and meal.

1. How early in the winter is it advisable to begin stimulative feeding?

2. Are granulated sugar syrup and say, rye meal, all the food necessary? What do you recommend?

3. How far do you consider it safe to carry the dividing, and at how early a date?

It appears to me that the further (and the earlier) they are divided, the more good, strong, young queens we will have laying.

But where is the principal danger?

ANSWER.—1. Don't try stimulative feeding in the winter on any account. Wait until the bees are flying daily.

2. Some think sugar syrup as good as honey for breeding purposes, while others think it very inferior, and only to be used when honey cannot be had. Probably no one thinks rye meal or any other substitute so good as natural pollen. If possible to have good honey and pollen, I should prefer it to anything else.

3. If it appears to you that the earlier you begin and the more you divide, the more good, strong, young queens you will have laying, I'm afraid it appears wrong to you. You can begin so early that your queens will be of little value, and if you divide too early or too much you will be the loser. As far

north as you are (41 degrees), if you get young queens to laying before June they are not likely to be of the best.

If you begin stimulative feeding in the winter, or too early in the spring, you may have fewer bees than to let them entirely alone. Indeed, it is possible to ruin a colony entirely by injudicious early interference in the way of feeding. If your object is to get as much honey as possible from the white honey harvest beginning in June, it will probably be best for you to do no dividing before the time of the harvest. Something, however, depends on the strength of the colonies in the spring, and upon the weather at that time. The thing I'm afraid of is that somehow you've got it into your head that by beginning very early to feed, and using feed enough, you can increase largely your number of colonies, and at the same time your harvest of honey. Please set that down as a serious error. Stimulative feeding is a two-edged sword that is not very safe in the hands of a beginner, unless he be of a very cautious turn. Your safe plan is to let it alone, if not entirely, at least till weather is warm enough for the bees to fly daily, and it will be a safer plan to do no dividing till about the time of natural swarming.

### Was It Foul Brood?

I now have 23 colonies from 10 that I bought last spring. I had one colony very weak when bought in April; it didn't do well all summer; it was in a box-hive. In August I transferred it to a Langstroth hive, and noticed nothing wrong in the appearance of the bees or brood. Sept. 28, after I had all fixed for winter, this colony swarmed out. I didn't know it for a week, and I then discovered it was gone, and the other bees robbing the honey. I shut it up at once and afterwards examined the hive and brood. The brood was all capped, filled regularly, no vacant cells, but looked entirely natural; but on opening the cells there was a rotten mass, attended with some odor quite offensive. I burned the frames, combs, brood, honey and all, in my house furnace.

1. Was that foul brood?
2. If so, can I hope that the bees that robbed part of that honey will have it consumed by winter use before brood-rearing in the spring, and consequently escape inoculating their brood and hive with the disease?
3. If not foul brood, what, probably, was it?
4. In view of all the facts, what should I do, and when do it?

My other colonies are strong, and have lots of honey, and are well-packed in winter-cases, filled with planer-shavings, and a super full of shavings on top of the frames. OHIO.

ANSWERS.—1. Possibly, and possibly not.

2. If it was a case of foul brood you may pretty safely expect the disease to be carried to the robbing colonies.

3. I don't know. It is just possible there was no disease at all.

4. Let the bees alone till warm weather. In the meantime study up the subject carefully in your books and back numbers of bee-papers, and thus you will become so well informed that when warm weather comes you will be well armed to meet the foe, if foe it proves. Don't omit Dr. Howard's pamphlet on foul brood.

### Can Bees Hear?

Do you think bees can hear?

SUBSCRIBER.

ANSWER.—Opinions are divided. Some authorities whose opinions are deserving of consideration insist that there is no evidence that bees can hear. As proof that they do not hear, instances are cited in which whistling and loud noises close to the bees have failed to make the bees show in the slightest degree that anything had been heard, while a slight touch upon the entrance-board would bring from the bees an immediate response. Such proofs, however, are only negative. If twenty men should testify that they had not seen Smith kill Jones, their testimony would be outweighed by the testimony of one man who had actually seen the murder. That a bee shows no sign of having heard a sound can not be considered proof positive that it has not heard the sound. Sounds may be produced in which bees have no interest, and no heed paid to them, while sounds to which we might pay little heed might produce a lively impression on them. If you were taken by a band of brigands, and they should state in the most positive terms, but in language unknown to you, that you are to be killed forthwith, you might pay little heed to it, and the brigands might say you were deaf; but if you were to hear the



APIARY OF A. KUBIN, ST. CLAIR CO., ALA.

same thing spoken in your own tongue, the brigands would be likely to say that your hearing was acute.

If you put your ear to a hive on a still summer evening, the great variety of sounds heard will awaken the inquiry, "Why do bees make all these noises if they cannot be heard?" But that is no positive proof that they do hear. Some years ago when one of my colonies swarmed with a clipped queen, I moved the old hive to a new place; but the bees of the returning swarm found it and began to enter, making as usual a loud call. I moved the hive to a new place, and the bees soon found it. Then I put it on a wheelbarrow and started to travel with it; but whenever I stopped the bees seemed to hear the call and began to cluster about the entrance. That was kept up for some time, and I can hardly understand how the bees found that hive unless they heard the call. It will not do to say they recognized the hive by sight, for if the same hive were moved, at a time when no call was made, only to the distance of six feet, but beyond another hive, the bees would never find it. Yes, I think bees can hear, but I don't know.

### Have They Enough Winter Stores?

I have seven colonies of bees this fall. Two of them are from the woods; one of these is in the chunk yet, the other I put on dry combs and the brood. Then I fed them 11 quarts of half water and half sugar, well stirred. Will they have enough till warm weather? WISCONSIN.

ANSWER.—If I understand you correctly, you gave them 5½ pounds of sugar. That would be equivalent to about 7½ pounds of honey, and it is considered wise to have about 30 pounds of honey for out-door wintering, and 25 for the cellar.

### Method to Keep Down Increase.

I do not wish any increase. My queens are all clipped. I work for comb honey, and want to re-queen all my colonies. How would it work to have a supply of virgin queens on hand at swarming-time, and when a swarm issues destroy the old queen, clean off all the queen-cells in the hive, and when the swarm returns drop a virgin queen among them? Do you think that would put an end to swarming? MICHIGAN.

ANSWER.—Very likely it might prove successful in most cases. A virgin queen would be kindly accepted if very young without any difficulty, but there might be trouble if she were several days old. At a guess, I should say that in some cases the bees would start cells again. Please report after you have experimented.

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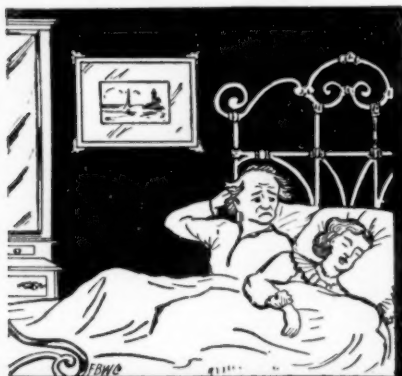
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## GENERAL ITEMS

### Bees Seem All Right.

My bees are in the cellar, and seem to be all right. The temperature is from 45 to 48 degrees. **GEO. A. OHMERT.**

Dubuque Co., Iowa, Jan. 6.

### Bottom Frame-Spacers, Etc.

I have been a subscriber to the American Bee Journal for nearly two years, and I am much interested in all it contains; but I do not remember to have seen anything written about two things, of which I claim to be the originator. First, it is a piece of tin so notched out as to allow the brood-frames to fit to the notches, which piece is nailed to the bottom-board about half way of its length. This arrangement holds the frame steady, and they can't by any means get irregular, and is a very valuable convenience.

The next is this: Instead of using a honey-board on top of the supers, I have adopted a piece of crocus or gunny-sack cut in shape to fit over the super, and to hang down an inch or so on all sides on the outside. Of course, the bees will stick it to the top of the sections or super-frames—so they will a honey-board; but with my arrangement you can easily pull it up when necessary, and look in, and replace it. With the honey-board you have to pry, and pry, and split, and worry considerable before you can get it up, and very often split it before it will come up. It has another advantage: It can be managed to act as a ventilator in the hot summer, by placing an inch strip of wood over the top, and let the top of the hive rest on the strip. This gives a gentle draft of air from above, and not too strong to interfere with comb-building. Has any one tried these two arrangements?

**JOHN KENNEDY.**

Adams Co., Miss., Dec. 12.

[Notched arrangements of wood, wire, and perhaps tin, for holding bottom-bars in place, were in use perhaps 40 years ago. Covers or gunny-sack or other cloth were also used to some extent some years ago.—EDITOR.]

### A Woman's Report for 1901.

It was a poor year for bees: late spring, then a drouth, then too much rain, and then no fall flow of honey. Some colonies did well for me, but I did not average a dollar to the hive. I sold all the honey I had at 15 and 20 cents a pound, and could have sold more to my customers if I had had it.

All the bees have plenty of stores for winter, unless it is one colony that I was moving to another part of the yard, and noticed it felt rather light. I will make candy and keep it under the Hill's device, and under the cushion, so that, if they should be short, they can get it. One of the grocerymen last fall gave me a lot of candy that had become unsalable. I was afraid of the coloring, so I kept it until spring and used it as I have spoken of before. When I took out the cushions they had it all used up, and such a mess of bees as I had; they made a lot of comb in the sections in the fall, but could not get honey to fill them, so I will have nearly a hundred to commence with in the spring, the most of them full of comb.

I have not seen any one hive bees as I do, and as I get so many helps in the American Bee Journal, I feel that it is my duty to give others the benefit of my experience. So before swarming-time next season I will give my way of hiving them.

I get the sections cleaned, and those that have not much honey in them I take a super and put in four section-holders and put it in a hive which I think has a little comb, and uncup where the honey is, and put them in on the section-holders, and cover it up; the

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bees of that hive will clean them out nicely, and not tear the comb any. When cleaned out I take out and put in more, until all are done, and there is no danger of robbing; the other bees do not know anything about it. I kept two sections on the porch to try that way, but they tore the comb considerably; but on the top of the hive they did their work nicely. I put some on two hives, but one can put them on as many hives as may be desired.

I could not get along without the American Bee Journal. There have been two or three articles that have been worth the price of a year's subscription. I look for it every Friday, and have to look at all the headings, however busy I am. I credit whatever success I have to the Bee Journal. One of my neighbors has four colonies, and she did not have a bit of honey; she feels she can not afford to take the Bee Journal because her bees have not been profitable to her. She will face the hives to the south, and some of the combs melted down. She did not have any shade. I shaded mine on top, and on the sides where I did not have other shade; then I have tall evergreen trees on the north side and partly on the west, to keep the cold winds off in the winter.

Mr. Andrew M. Thompson, of Allegheny Co., N. Y., wants to know whether any one can show a better record of wintering bees than he can. I am not a gentleman bee-keeper, but an old lady, 73 years old Dec. 16, and as I had not kept a record of my bees I can speak only for the past two years. I keep them on the summer stands, and have not lost any the past two winters, and I do not think I lost any the winter before. I put on top the brood-frames a Hill's device, a piece of sacking over that, then a good cushion, most of them filled with cork-trimmings, the rest with maple leaves. I leave the entrance the same as for summer, the length of the front. To keep out mice, I put a strip of wire two inches wide in the front, which allows the bees to go in and out at will.

I have always had my hives face east, and leave the same in the winter. I set a board slanting in front, and when it snows I go to them all and draw the board out at the top, and brush the snow away and lean it back against the hive at the top. On some I have boxes, or frames, I should say, with no top or bottom, large enough to set over the hive, so I can pack leaves or dry grass between the hive and box, then a cover of boards with tar paper. Some I have fodder standing around three sides, and a little around the front corners and the tops over the hives. I have most of them in pairs, with fodder around them, and dry grass or leaves between.

I have 16 colonies, and all nicely packed for winter. I finished the last outside on Thanksgiving Day. I have tried the tar paper as I read of in the Bee Journal, letting it come to the ground, then packed grass and sod all around on top of that a little ways, so the cold wind can not go under the hive. They are set on frames 6 or 8 inches from the ground. I pack the hives, as I said, with the tar paper around before I set up the fodder to keep the cold from going under. The box-frames are banked up the same (not at the entrance, of course), so they are better cared for this winter.

I buy dry-goods boxes to use for my bee-business, and knock them to pieces, as they are cheaper than lumber. My means are limited, and I am alone, and have to do everything myself. If I live till spring I may report what success I have this winter.

If the foregoing finds a place in the "Old Reliable," Andrew Thompson can judge for himself whether or not this is what he asked for.

SARAH J. GRIFFITH.

Cumberland Co., N. J., Dec. 2.

### An Old-Timer's Methods.

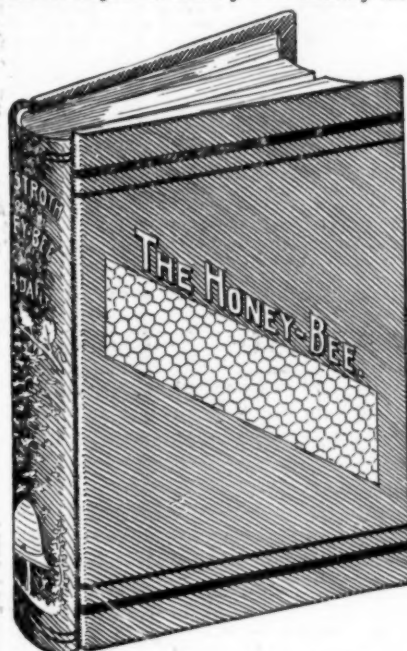
A grape-vine is a nuisance in the bee-yard. I now have a fine cherry orchard trimmed high enough for one to walk under, and it gives good ventilation between the branches and the bee-hives, with shade all the hot part of the day. My hives are 8 to 10 inches from the ground, all in good, well-painted hives—no rags stuffed in cracks, and the alighting-boards are as wide as the bottom of the hives.

I once bought burlap by the acre, and cut

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and sowed sacks for chaff cushions till the wee hours of the night, then hauled oats chaff to the barn to use for filling, and in spite of all I would lose some bees. There was too much work in this, so I adopted this plan, which has been a success so far for some years:

First, I see that every colony has plenty of stores; then I take supers (without section-holders), cut a thin board just to fit in the rabbit at the top of the super. Then scrape clean the top-bars of all burr-comb, if any, then set the super on the hive. The bees have room to pass over all the brood-frames as they may have occasion. I put nothing whatever in the supers. I have a lot of boards cut and ready to drop in the supers, and in a few hours one man can put on a great many supers. This plan has been a success with me for some years. I once bought a lot of the Hill's device, which are now as worthless as a last year's bird's-nest.

In my judgment, there are too many new-fangled things gotten up for the benefit of the inventor and the man who manufactures them, and great effort made to make the new bee-man think that without these he is not up-to-date in bee-keeping. In fact, I do not think the bees themselves like so much red-tape.

I do not tinker much with my bees. When they swarm I give them a good house to commence in, and then let them alone. I get lots of honey almost every year. Owing to the severe frost and freeze of Sept. 18 and 19, 1901, the honey-flow was cut square off, which left me with more unfinished sections than I have ever had at one time in my 30 years of bee-keeping.

J. W. C. GRAY.  
Piatt Co., Ill., Nov. 26.



#### Candied Honey — "Educating" the Public.

In a letter recently received from Mr. R. C. Aikin, of Colorado, he writes that he put up over 20,000 pounds of honey in lard-pails, let it candy, and that now there is less than a fourth of it left, or a total of 16,000 pounds of candied honey sold in three months. He is now buying more extracted, and proposes to put it in paper bags, just "to save money and to head off the tin trust," as he says.

This goes to show what can be accomplished in one's own locality by educating the consumers. In the East they have been taught to call for extracted, not candied. It may be well, in view of the large amount of the glucosed product on the market in jelly-tumblers, with a little piece of dry comb in it, to educate our customers to the use of candied honey. Just imagine, if you please, the glucose people trying to make their product candy solid. If the consumers of the whole United States were "educated" or made to understand that our product in the granulated form of a certain amount of consistency was absolutely pure, they would buy honey in that shape and give the glucosed jelly-tumbler the go-by.

There, now, I do not mean to advocate that we of the East should put out candied honey exclusively. Oh, no! but I only desired to show that where a locality is "educated" to the use of honey in this form, it would buy quantities and quantities of it, as well as clear extracted, because it would know it was getting pure honey.—Gleanings in Bee-Culture.

#### A Long-Tongued Canard.

A wild statement is going the rounds of the European bee-journals, the last one I've seen it in being Le Rucher Belge, a really excellent journal. In that it is said in all seriousness that Mr. Root, the well-known American bee-keeper, has succeeded in obtaining long-tongued bees of such excellence that, notwithstanding the high price at which Mr. Root sells them, \$200 apiece, he has not been

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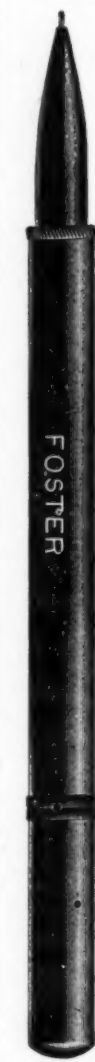
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side to supply the demand, and has been obliged to start an additional queen-rearing establishment in Texas to help out!

Now, I wonder how many of our foreign friends will make the proper correction by saying that the A. I. Root Co. merely valued one queen (that was never offered for sale) at \$200, and never sold a queen for more than \$10.—[It is evident that some of our friends across the water see through a glass darkly. That is to say, they have acquired only a smattering of English, and a very poor smattering at that, with the result that they do not read aright. Whew! if we could sell queens for \$200 apiece, and not supply the demand, we would go out of the supply business instantly.—EDITOR.]—Stray Straw in Gleanings in Bee-Culture.

### Long-Tongue Bees.

At last, thanks to Editor York (American Bee Journal, page 691), my error has been specifically pointed out, and I am glad to correct it, for I did not say what I meant. I said, "I believe that long tongues are of no value only so far as they represent an increase of vigor;" I meant to say, "I believe that long tongues are of no value except in those cases in which they represent an increase of vigor." Mr. Doolittle's measurements tend to confirm this position.—F. B. SIMPSON, in the Bee-Keepers' Review.

### The Future of Alfalfa.

A correspondent in this issue refers to the fact that the growers of alfalfa hay are beginning to cut earlier than usual; that instead of two cuttings in a season they now get three. The result is that the mower now begins its work just about as soon as the plant begins to bloom. If it should be found more profitable, in point of hay, to cut early and often, and before full bloom, the ranchmen will, of course, look to their own interests, and not to those of the bee-keepers. There is a bare possibility that the time will come when bee-keeping in the alfalfa regions, where hay is the sole object, will not be as profitable as now. Those who think of going into these new localities would do well to take this into consideration.—Gleanings in Bee-Culture.

### Bees and Grapes.

This season being extremely dry, the bees did no good at all around here, many starving, so that there are only just a few bees in our town. Having a demand for them, we sold most of ours, so when the grape season was in, the bees did not bother the grapes at all so far as we know, but a man in town told us that the birds were destroying his grapes, as he saw them doing it, but did not see a bee around.

We noticed here last season (1901) some grapes (we believe they were Concord's), were left on the vines until they were over-ripe, so that one could smell them for 30 feet away, and we never saw a bee on them at all.—J. W. ROUSE, in Progressive Bee-Keeper.

### Time Required to Improve Bees.

In Gleanings in Bee-Culture S. E. Miller took the ground that if we should now begin the work of securing long tongues in bees, our grandchildren might be needed to bring the work to an issue. Referring to this, a Stray Straw in last Gleanings says:

Rather discouraging is the outlook for improvement according to what is said on page 974. It is true that some improvements have required generations, as mentioned. But there's another side. Some of the improvements have been compassed in a year. Within 12 miles of here lives a man who lately gave \$1750 for a single carnation plant. It is hardly likely that a lifetime was spent on that plant. Agrippina is a rose of low growth. One day Rev. James Sprunt found a branch of an agrippina shooting away above the rest. That's about all the time it took him to produce a new climbing rose—the

James Sprunt. One day a white rose was found growing on a branch of the pink rose Catharine Mermet, and from this sport, as it is called, was at once established the beautiful white rose, the Bride. Many other new varieties have come from sports.—[You are right. The case of an insect and that of an animal, so far as the element of time is concerned, is not alike. Of queen-bees we may be able to get several generations in a season; of cattle, for example, not more than one in a year. Then it is true that a "sport" will sometimes reach away in beyond the characteristics of the parent stock.—EDITOR.]

### CONVENTION NOTICES.

**Minnesota.**—The Southern Minnesota Bee-Keepers' Association will hold its next annual convention in the County Commissioners' room at the Court House in Winona, Jan. 21 and 22. A good program has been arranged, and a large attendance is expected. All are invited.  
E. B. HUFFMAN.

**Wisconsin.**—The Wisconsin State Bee-Keepers' Association will hold its annual convention in the State Capitol, at Madison, Feb. 5 and 6, 1902. This promises to be a large convention. All are invited to attend. There will be excursion rates of 1½ fare for the round-trip, good for all of the first week in February.  
N. E. FRANCE, Pres. ADA L. PICKARD, Sec.

**New York.**—The annual meeting of the New York State Association of Bee-Keepers' Societies will be held in the parlors of the Kirkwood Hotel, Geneva, N.Y., Wednesday, Feb. 5, 1902, commencing at 10 a.m. All interested in bee-culture are cordially invited to be present. Subjects of importance are to be brought before this meeting, and it is desired to have a large representation of bee-keepers in attendance.  
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## HONEY AND BEESWAX

### MARKET QUOTATIONS.

**CHICAGO, Dec. 21.**—The honey market is of a slow nature with little change in price of any of the grades. Choice grades of white comb honey, 14¼@15c; good to No. 1, 13½@14c; light ambers, 12¼@13c; dark grades, including buckwheat, 10@12c. Extracted, white, 5¼@7c; amber, 5¼@5½c; dark, 5@5¼c; the scale of prices varying according to flavor, body and package. Beeswax steady at 28c. R. A. BURNETT & CO.

**NEW YORK, Jan. 9.**—Comb honey continues in good demand with supplies pretty well exhausted, and we quote: Fancy white, 15c; No. 1, 14c; No. 2, white, 13c; amber, 12c; dark, 10@11c. Extracted dull with large supplies and quotations on large lots generally shaded in order to effect sales. We quote: White, 6¼@7c; amber, 5¼@6c; dark, 5@5½c. Beeswax firm and rather scarce at 28@28½c.

HILDRETH & SEGELKEN.

**BOSTON, Jan. 4.**—Comb honey is in good supply and not working off as well as we would like to see at this time of the year. Prices are ranging as follows: Strictly No. 1, 15@15½c; No. 2, 14c. Extracted, white, 7@7¼c; light amber, 6½c. BLAKE, SCOTT & LEE.

**DETROIT, Dec. 20.**—Fancy white comb honey, 14@15c; No. 1, 13@14c; no dark to quote. Extracted, white, 6@7c. Beeswax, 25@26c.

M. H. HUNT & SON.

**SAN FRANCISCO, Dec. 31.**—White comb, 11@12½ cents; amber, 8@10c; dark, 6@7 cents. Extracted, white, 5¼@6c; light amber, 4¼@5c; amber, 4@— Beeswax, good to choice, light, 26@28c; dark, 24@25c.

Business doing is not brisk, but is at generally unchanged values, the market being moderately firm at current rates, particularly for choice to select. Stocks in this center are of quite moderate proportions, and it is the exception where special selling pressure is exerted, or less than full current figures prove acceptable to holders.



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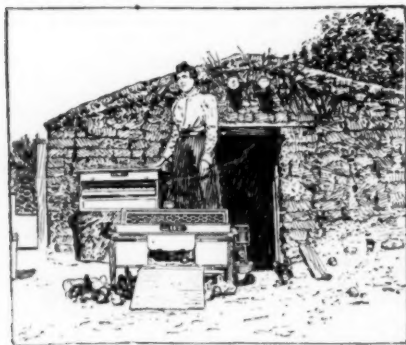
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**A Novel Incubator House.**—The accompanying illustration shows the incubator house made and used by Mrs. Ruth Morris, on her farm in Norton Co., Kan. The house is what is known in that part of the country as a "sod house." Large blocks of mud are dried in the sun, and then placed on top of each other with a soft mixture between, very much after the manner of erecting an ordinary brick building. Across the top, timbers are placed which are covered with sod, then a layer of mud, upon which is placed another covering of sod. After the building is erected it is washed off with water to close all cracks and crevices; then grass and flower seeds are scattered all over it, and in a short time the structure has a beautiful



covering of green and gray, here and there studded with beautiful blossoms. These houses are dry, clean and comfortable. Many farmers use them for dwellings, while the stables and barns are similarly constructed.

In the foreground is a Hen Brooder, and you will observe that the chicks are as lively as those cared for by the mother hen. Mrs. Morris is standing beside a 100-egg capacity Wooden Hen which she has refilled for the sixth time. Both were bought of Geo. H. Stahl, Quincy, Ill., to whom she writes:

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